

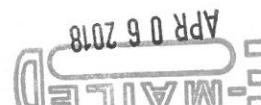
PO No	Supplier Line Rel No	Term No	Purchased Item	Description	For Project	Equipment ID	Order No	Part No	Quantity	Date Due	Received Qty	Accounting Job No	Container No	Status	Receive Date	Price/Unit
PO39521	AC001-VC	1	Net 30 M1018R1125	MATERIAL 1125:					20	4/12/2018	20	S05965	Stock	4/10/2018	\$ 3.24 / ft	
		2	MAT-A513-T	Steel Round Tubing 0.875"dia. x 1.12" Wall	A513 Seamless Alloy				60		69	S05966	Stock	4/10/2018	\$ 2.06 / ft	
		3	M6061T6B1000X04.000	MATERIAL: 6061 T6	ALUMINUM BAR PER				24		24	S05967	Stock	4/10/2018	\$ 13.25 / ft	
		4	M304R0.375	340 Round Bar 0.375":	MATERIAL: AISI 304/316 SS ROUND BAR AS PER				24		24	S05968	Stock	4/10/2018	\$ 1.19 / ft	
		5	MT-HRS-B-0.500X2.250	HOT Rolled Steel Bar 0.500" X 2.250": -MATERIAL:	0.500" X 2.250": -MATERIAL:				6		6	S05969	Stock	4/10/2018	\$ 6.70 / ft	
		6	MT-1144-H0.500	UNS G11440	BAR AS PER ASTM A36 HOT ROLLED STEEL				12		12	S05969	Stock	4/10/2018	\$ 5.77 / ft	
		7	MT-1144-R0.625	UNS G11440	STRESSRROD OF STEEL HEX BAR ASTM A311 OR				20		24	S059691	Stock	4/10/2018	\$ 1.18 / ft	
		8	MT-4140-R0.625	MATL SPECS AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 RC	MAXIMUM ROCKWELL C = 38 RC AS PER ASTM A39 AMS 6349, AMS 6392, AMS 6292				20		20	S059692	Stock	4/10/2018	\$ 2.88 / ft	

# PURCHASE ORDER

## PO039521

Tel (613) 632-5200

Supplier: AC1001-VGC Acer Ouellette Inc.  
935 Boulevard Du Havre Valleyfield QC J6S 5L1 Canada  
Phone: 800 667 4248 Fax: 450 377 5696



**DART**  
AEROSPACE

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON  
K6A 1K7  
Canada

PURCHASE ORDER

Line Item	Part	Supplier	Part No	Description	Status	Due Date	Order Received	Quantity	Balance	Unit Price (CAD)	Extended Price
1	M1018R1.125	M1018R1.125	AISI 1018-1025 ROUND BAR	MATERIAL: AISI 1018-1025 ROUND BAR	Firmed	4/12/18	20 ft	0 ft	\$3.243/f	\$64.86	APR 10 2018
2	MT-A513-T-	0.875W0.120	A513 Seamless Alloy Steel Round Tubing	MATL: A5 PER ASTM A513 TYPE 5	Firmed	4/12/18	60 ft	0 ft	\$2.0595/f	\$123.57	APR 10 2018
3	M6061T6B1.000X04.000	6061-T6 Bar 1.00 X 4.00	MATERIAL: 6061-T6 ALUMINUM BAR PER T6/T651/T6510/T6511/T62	MATERIAL: 6061-T6 ALUMINUM BAR PER T6/T651/T6510/T6511/T62	Firmed	4/12/18	24 ft	0 ft	\$13.245416/f	\$317.89	APR 10 2018
4	M304R0.375	304 Round Bar 0.375	: MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE	: MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE	Firmed	4/12/18	24 ft	0 ft	\$1.1879166/f	\$28.51	APR 10 2018

Line Item Note: NOTE CUT BAR IN HALF 2 PCS 10 FT

Line Item Note: 0.875"dia. x 0.120" Wall 0.875"dia. x 0.120" Wall

Line Item Note: 6061-T6 Bar 1.00 X 4.00 6061-T6 Bar 1.00 X 4.00

Line Item Note: M304R0.375 M304R0.375

Line Item Note: APR 4/6/18 2:44 PM dar.lavoie.chatnai

https://www.plexonline.com/11e58bb3-02c2-4a7e-8c69-a3377e5abdb6/Plexus\_ReportViewer-2.asp?rv=1.E.%2FPurchasing%2FPurchaseOrder.aspx%3FC

Line Item	Part Number	Supplier	Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balanced Quantity	Unit Price (CAD)	Extended Price
Items											
5	MT-HRS-B-0.500X2.250	Hot Rolled Steel Bar	Hot Rolled Steel Bar	Firmed 4/12/18	6 ft	0 ft	6 ft	\$6.69667/ft	\$40.18		
6	MT-1144-H0.250	: MATL: HOT ROLLED STEEL BAR AS PER ASTM A36 OR 44W OR ASTM A1018	0.500" X 2.250"	Firmed 4/12/18	12 ft	0 ft	12 ft	\$5.77/ft	\$69.24	DAS 11 9-89	
7	MT-1144-H0.500	AISI 1144 Stressproof Steel Hex Bar 0.250"	MATL SPEC'S:	Firmed 4/12/18	20 ft	0 ft	20 ft	\$1.1755/ft	\$23.51	DAS 11 9-89	
8	MT-4140-R0.625	AISI 1144 Stressproof Steel Hex Bar 0.250"	MATL SPEC'S:	Firmed 4/12/18	20 ft	0 ft	20 ft	\$2.878/ft	\$57.56	DAS 11 9-89	

## Order Notes

Procurement Quality Clauses

A005 height of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material compliance

A041 quality management system

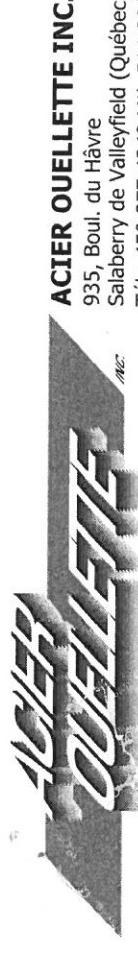
A042 defect notification by supplier

A043 retention of quality documents

A049 supplier awareness

Plex 4/6/18 2:44 PM date, labore, chartal

Terms & Condition of Purchasing(Supplier) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit <a href="http://www.daratearspace.com">www.daratearspace.com</a> for further explanation.



# DELIVERY - CLIENT

CO00082609

## ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

**Billed to**  
DART AEROSPACE LTD

1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

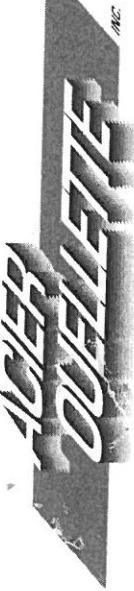
**Instruction** F-M

**Delivery Route** 5

<b>Product Description</b>	<b>Qty</b>	<b>U/M</b>	<b>PCS NB</b>			<b>Internal Use Only</b>		
			<b>CMD</b>	<b>EXP</b>	<b>B/O</b>	<b>IN</b>	<b>I</b>	<b>S</b>
1 ROUND 4140 HEAT TREAT 5/8 (R) R4140-58H 4977  1 X 20'	20.86	20.00	PI_\$CLB	1X 20	1 20	1	APR 10 2018	11 9-89
TRANSIT ST-JEROME LE 09/04								
3 ROUND STRESSPROOF 1/4 RANDOM NS RST-14-V 8545  1 X 12' AC15037-GR-09/04	2.00	12.00	PI_\$CLB	1Y 12	1 12	1	APR 10 2018	11 9-89
4 ROUND STRESSPROOF 1/2 (R) RST-12 5795  1 X 24"	13.36	20.00	PI_\$CLB 24.00	2X12	2 24	1	APR 10 2018	11 9-89

NIR : R-109516-6

Next Page...



# DELIVERY - CLIENT

CO00082609

## ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

**Billed to**

DART AEROSPACE LTD

1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7**Shipped to**

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

Delivery Route 5

Instruction F-M

Page

2

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only		
				CMD	EXP	B/O	IN	I	S

**Conditions :**

All sold and delivered materials remain the property of "Acer Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acer Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acer Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

**Total Weight (lbs) :**

36.22

**NIR :**

R109516-6

Prepared By :	Verified By :	Delivered By :	Time						Total (\$CAD)
									Date

Y	M	D
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Customer's Signature





### ACIER OUELLETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

### Order - Factory

CO000082609

**Billed to**

DART AEROSPACE LTD

1270, ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

**Shipped to**

Customer N° CLI0001056  
Date 2018/04/06  
Delivery date 2018/04/12 12:00:00 AM  
Your order N° 39521  
Processed by Josianne Bourdon  
Salesman  
Carrier  
Credit Terme OUELLETTE VALLEYFIELD  
Net 30 Days

Product Description	Weight	Qty	UM	PCS NB	CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND 4140 HEAT TREAT 5/8 (R) R4140-58H 1 X 20' HEAT: 75061935 TRANSIT ST-JEROME LE 09/04	4977	20.86	20.00	PI_\$CLB	1.00							
3 ROUND STRESSPROOF 1/4 RANDOM NS RST-14-V 1 X 12' AC15037-GR 09/04 heat to follow	8545	W 24' x 12' 5 FOR WLL test	2.00	PI_\$CLB	1.00							
4 ROUND STRESSPROOF 1/2 (R) RST-12 2 X 12' heat number 20504590	5795	W 24' x 12' 5 FOR WLL test	13.36	PI_\$CLB	1.00							

**FRAIS ENERGETIQUE**

**SURCHARGE ENERGETIQUE**

**Total Weight (LBS) :** 36.22

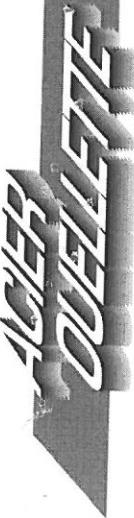
**NIR :** R-109516-6

All sold and delivered materials remain the property of "Acier Ouellette Inc." until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to pay administration charges of 2% per annum on all past due amounts over 30 days. Any default in within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

**Conditions :**  
"Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc." to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per annum on all past due amounts over 30 days. Any default in within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

Prepared By :	Verified By :	Delivered By :	Time	Customer's Signature	Y	M	D	Total (\$CAD)	Deposit	Balance
								174.31	0.00	174.31





## DELIVERY - CLIENT

## ACIER OUELETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5566 Mtl: 514-336-4246 Ext.: 866-456-4242

## Copy

CO00082603

CLI0001056  
2018/04/06

**2018/04/10**

39521

Josianne Bourdon  
OUELETTE VALLEYFIELD

## Billed to

DART AEROSPACE LTD  
Salesman

Carrier

OUELETTE VALLEYFIELD

Net 30 Days

## Shipped to

Att : CHANTAL LAVOIE Tél.: 613-632-5200  
Delivery Route 5

Page 2

## Customer N°

Date

Credit Térme

IN

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OUT

## Processed by

Salesman

Carrier

OUELETTE VALLEYFIELD

Net 30 Days

## Your order N°

39521

Josianne Bourdon

OUELETTE VALLEYFIELD

Net 30 Days

## Salesman

Carrier

OUELETTE VALLEYFIELD

Net 30 Days

## Credit Térme

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## Customer Signature

Customer's Signature

## Total (\$CAD)

Date

## Prepared By :

Verified By :

Delivered By :

Time

## Conditions :

All solid and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc" to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

## Conditions :

All solid and delivered materials remain the property of "Acier Ouellette Inc" until payment is made in full, complete and cashed. All lost materials are at the buyer's expense. The warranty offered by "Acier Ouellette Inc." is the same as offered and honored by the manufacturer and his warranty is transferred by "Acier Ouellette Inc" to the client. The buyer hereby accepts to respect the following conditions: Net 30 days from billing date and the buyer accepts to pay administration charges of 2% per month (24% per annum) on all past due amounts over 30 days. Any default in respect with this contract will lead to payment by acceleration and permits to the seller, at his choice to claim for the balance due or the repossession of the goods sold. All claims must be made within five (5) days with this document enclosed. Any merchandise that has been damaged, cut or modified cannot be returned. All goods returned must be with our authorization and are subject to a 25% restocking charge.

## Total Weight (lbs) :

280.50

## NIR : R-109516-6



14

MANAGER, CORPORATE PURCHASING

*[Signature]*

The willful rendering of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under Federal statutes.

We hereby certify that the material so tested by this report will meet the applicable requirements specified herein, including any specification calling a part of the description.

The above data were taken from the material submitted to the laboratory for testing. All test results are final and subject to examination or retest at the discretion of the certifying authority. All test results remain on file subject to examination.

TERRY GALARATI  
Vice President, Purchasing

We hereby certify that the material so tested by this report will meet the applicable requirements specified herein, including any specification calling a part of the description.

TERRY GALARATI  
Vice President, Purchasing

Sept 2011

A311

*1/4" Structural*

GRAN SIZE : 5

DESCRIPTION						
VLD STR	ULT TEN	%ELONG	%RED	HARDNESS	IN AREA	RC
108556.0	122156.0	16.2	47.8	24	IN 02 IN	BSI

MECHANICAL PROPERTIES

COUNTRY OF ORIGIN : USA						
AC#:	K240971					
0.08	AL	0.001	0.002	0.006	0.0001	0.001
0.42	MN	1.39	0.011	0.273	0.20	0.04
CU	MIN	P	S	SI	NI	CR
0.42	0.08	0.001	0	N	R	NB

CHEMICAL ANALYSIS

ASTM A311 CL B 10						
ASTM A311 CL B 10						
ITEM: 501719						
Line Total: 11 LB						
HEAT #: 20450880						
Description: STRESSPROOF® CF BAR ASTM A311 CL B						

Specifications:  
ASTM A108 13

SOLD TO:

0001 501719

CUSTOMER PART NUMBER

T127467  
Invoice Number

CUSTOMER ORDER NUMBER

14-AUG-2017  
Certification Date

Page 01 of 02

CERTIFICATE OF TEST

DAR+

P.O. 1503AU



# CERTIFICATE OF TEST

PART NUMBER/NUMERO DE PIÈCE  
AC00005079

NUMBER DE COMMANDE DU CLIENT  
25-APR-2017

CUSTOMER ORDER NUMBER  
Certification Date  
25-APR-2017

Page 01 of 02

GERANT DE L'ASSURANCE QUALITE  
MANAGER QUALITY INSURANCE

*JOANNE DESPRES*

JOANNE DESPRES  
Manager did not come in contact with me today while in our possession. I let her know we have some concerns about the material and she responded that she will be in touch with us as soon as possible.

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specific requirements of the certificate. All test results remain on file subject to examination. Lab information or shall-measurements soon thereafter are to be provided to customers who have been contacted by certified personnel. We hereby certify that the material covered by this report complies with the applicable requirements described herein, including any specification forming part of the description. But les personnes nous certifions que le matériau conforme les spécifications décrites ci-dessus.

A The willful recording of false, fictitious, or fraudulent statements, false information with intent to defraud, or perjury under federal statutes, U.S. information laws, or other federal laws may be punishable as a felony under federal statutes. U.S. information laws or other federal laws may be punished as a felony under federal statutes, U.S. information laws, or other federal laws.

COUNTRY OF ORIGIN : USA

C	MN	P	S	SI	NI	CR	MO	0.40	0.97	0.007	0.026	0.25	0.23	0.86	0.16	CU	SN	AL	V	NB	0.21	0.01	0.023	0.002	0.002	Rcpt.	R977496

## CHEMICAL ANALYSIS

ASTM A322 07	ASTM A29 M29M 11	EN 10204 3.1 04	SAE J422	ASTM A304 05	EN 10204 3.1 04	ASTM E112	ASTM A304 11	ASTM E381	ASTM A255	ASTM A322 91	CAT 1E0024	CAT 1E0022 13	CAT 1E0022 11	CAT 1E0024	CAT 1E0022 91	CU	SN	AL	V	NB	0.21	0.01	0.023	0.002	0.002	Rcpt.	R977496
--------------	------------------	-----------------	----------	--------------	-----------------	-----------	--------------	-----------	-----------	--------------	------------	---------------	---------------	------------	---------------	----	----	----	---	----	------	------	-------	-------	-------	-------	---------

Description: 4140/4142 HR ANN BAR ASTM A322  
Line Total: 426 LB

ITEM: 506255  
HEAT: 15061935

SOLD TO: ACIER OUEILLETT INC SHIP TO: EXPEDIE A:  
22 BOULEVARD J-F KENNEDY  
SAINTE-JEROME QC J7Y 4B6  
VENDU A:  
ST JEROME QC J7Y 4B6  
22 BOULEVARD J-F KENNEDY  
SAINTE-JEROME QC J7Y 4B6

506255

PART NUMBER/NUMERO DE PIÈCE  
AC00005079

NUMBER DE COMMANDE DU CLIENT  
25-APR-2017

# CERTIFICATE OF TEST

CERTIFICATE OF TEST

Certification Date

CUSTOMER ORDER NUMBER  
25-APR-2017

Customer Order Number  
T365756

ACCO0005079  
PART NUMBER/NUMBER DE PIÈCE

InvoiCé Number  
T365756

506255  
SOLD TO:

ACTIER OUEILLETTÉ INC  
SHIP TO:  
22 BOULEVARD J-F KENNEDEY  
SAINT JEROME QC J7Y 4B6

VENDED A:  
EXPEDE A:

ENDU A:  
ITEM: 506255  
HEAT: 75061935  
DESCRIPTION: 4140/4142 HR ANN BAR ASTM A322  
Line Total: 426 LB  
END-DURENCE HARDENABILITY (JOMINY - RC)  
ITEM: 506255  
2 3 4 5 6 7 8 9 10 12 14 16 18 20  
24 28 32 39 37  
42 46 50 54 55 56 56 56 56 55 54 53 51 49 47 45 44 44  
MACRO: OK

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and accuracy. All test results remain on file subject to examination. Les informations ci-dessous sont fournies en connexion avec les résultats de ces essais qui ont été effectués par le fabricant dans le cadre d'un certificat de vérification. Toute modification ou ajout de ces informations devra être faite au fabricant. Ces informations sont fournies en connexion avec les résultats de ces essais qui ont été effectués par le fabricant dans le cadre d'un certificat de vérification.

JOANNE DESPRES

Witness did not come in contact with me orally while in our possession. Per les présentes, nous certifions que le материал оставлен в моем распоряжении. Мы не контактируем с вами устно.

*Signature*

GERANT DE L'ASSURANCE QUALITE  
MANAGER QUALITY ASSURANCE

NAGARA LASALLE CORPORATION											
1412 150th Street, Hammond IN 46327-1799											
CERTIFICATE OF PURCHASE ORDER #99740											
DATE 08/11/17		PAGE 2									
ITEM 110500432S4 CUSTOMER ITEM VZ15371 GRADE STRESSROOF(R) SHAPE Round SIZE 5000 LENGTH 110" / 12' 6" SPEC/REV: ASTM A108-13 SPEC/REV: ASTM A29/A29M-16 SPEC/REV: ASTM A311-A(2010) CLASS B											
STRESSROOF(R) SPEC/REV: ASTM A108-13 SPEC/REV: ASTM A29/A29M-16 SPEC/REV: ASTM A311-A(2010) CLASS B											
HEAT 20504590 GRAIN PRACTICE COURSE SOURCE/MELTED CAST REDUCTION RATIO DI SHEMISTRY CHARTER STEEL - OHIO (USA) STRAND 249.5:1 1.99											
0.410 4.360 .013 .279 0.190 0.050 0.100 .020 .150 .001 .002 N TE AS S SI NI CR MO CU AL V .007 N/A N/A PB SE BI N/A .008 B NB MECHANICAL J08 TENSILE 2% YIELD 131,930 PSI 103,107 PSI R OF A HARDNESS .02% YIELD SR TEMP HS45598 H45598 3.830 PRICES 469 LOT J08 WEIGHT (LBS) PIECES											
LOT 5484326 H45598 3.830 PRICES 469 WE, hereby certify that these goods were produced in compliance with all applicable requirements of sections 6, 7, and 12 of the Fair Labor Standards Act, or any metal alloy that is liquid at ambient temperature during processing of which in our possession. No weld repairs performed on the above material as amended, and all regulations and orders of the United States Department of Labor issued under section 14 thereof. Material was not exposed to mercury or any metal alloy that is liquid at ambient temperature during processing of which in our possession. No weld repairs performed on the above material.											
CERTIFICATE OF TEST BY Walter P. Kretzler - Director of Q.A./Chief Metallurgist											



CERTIFICADO DE CALIDAD/QUALITY REPORT

The accuracy is made according to:

**Norm:** *Bridge steel products de acero. Condiciones técnicas de suministro.*

MEDIDA	OP	COLADA	Resistência Cort-Nr.	Tensão energética Nm/mm²	Tensão de ruptura N/mm²	Largura HB mm	Distância %
31,75	137240	40676 G	525,92	512,03	25,00	176,00	47,11
12,70	137245	40878 S	559,00	559,00	15,10	190,00	0,00
22,23	137450	40439 SR	511,00	358,00	33,30	0,00	0,00
25,40	137455	40878 S	600,00	559,00	15,10	190,00	0,00
12,70	137508	40717 G	625,03	599,51	24,20	185,00	55,97
31,75	137555	40878 S	600,00	559,00	15,10	190,00	0,00
12,70	137561	38275 A	653,05	610,77	19,38	210,00	62,67
12,70	130937	40919 G	581,40	560,00	32,74	176,00	51,73
15,88	137568	40759 G	656,99	639,55	16,40	190,00	58,82
25,40	202250	40816 G	581,48	576,41	25,44	176,00	59,77
28,58	137590	40910 G	568,80	546,30	32,76	180,00	42,92
9,53	137736	40673 GM	684,30	619,80	16,54	210,00	59,00
7,94	202248	40859 OC	548,10	518,80	11,92	159,00	62,06
12,70	137732	40929 W	410,00	359,00	15,10	190,00	0,00
82,55	137733	40345 IS	0,00	0,00	25,80	0,00	48,83
19,05	202238	40817 AG	580,62	566,97	19,96	185,00	0,00
28,58	138186	40440 SR	501,00	350,00	29,00	0,00	48,88

ALBARRAN	45927	CLIENTE	LES ACTIERS TRANSBEC (1997) LTD.	CUSTOMER Deltaplano Nro. Nr.
ALBARRAN	45927	CLIENTE	LES ACTIERS TRANSBEC (1997) LTD.	CUSTOMER Deltaplano Nro. Nr.

Norme : EN 10277

Mechanical properties / Mechanics mechanics / Materials / Materials

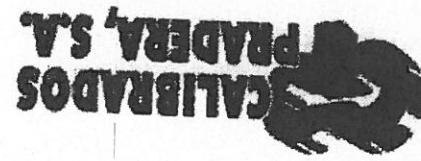
Description	Code	OP	Descripton
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12L14 RED. ESTRADO 31,75 (1 1/4")  
EN 10277-1

12114	RED, ESTIRADO 31,75 (1 1/4")	137240	3
1018	RED, ESTIRADO 22,23 (7/8")	137508	2
1018	RED, ESTIRADO 31,75 (1 1/4")	137558	3
1018	RED, ESTIRADO 12,70 (1/2")	130937	2
1018	RED, ESTIRADO 15,88 (5/8")	137561	2
1018	RED, ESTIRADO 25,40 (1")	137733	2
12114	RED, ESTIRADO 25,40 (1")	13773	3
1018	RED, ESTIRADO 28,58 (1 1/8")	137590	2
1018	RED, ESTIRADO 32,20 (1 1/2")	202250	3
12114	RED, ESTIRADO 37,50 (1 1/2")	137729	3
12114	RED, ESTIRADO 43,50 (2 1/2")	137732	2-
12114	RED, ESTIRADO 48,25 (3 1/4")	137733	2
12114	RED, ESTIRADO 53,00 (3 1/4")	137736	3
12114	RED, ESTIRADO 57,94 (5 1/16")	137736	2
12114	RED, ESTIRADO 63,88 (5/8")	202248	3
12114	RED, ESTIRADO 7,94 (5 1/16")	137736	2
1018	RED, ESTIRADO 9,53 (3/8")	137590	2
1018	RED, ESTIRADO 13,88 (5/8")	137729	3
12114	RED, ESTIRADO 19,05 (3/4")	137732	2-
12114	RED, ESTIRADO 24,55 (3 1/4")	137733	2
12114	RED, ESTIRADO 29,25 (3 1/4")	202238	3

## CERTIFICADO DE CALIDAD/QUALITY REPORT

ARANAY LUPARDO, 2  
48490 UGADO-MIRAVALLS/VIZCAYA (SPAIN)  
Tfno.: 946480211  
Fax: 946480128  
Email: calibradores@calibradorespradeles.es  
www.calibradorespradeles.es



De acuerdo a / Made according to:  
EN 10204/DIN 50049

3.1

ALBARRAN 45927	DETALLE Note Nr.	Norma : EN 10277
		Productos Calibrados de acero. Condiciones técnicas de suministro. Norma : Briqüeta steel products. Technical delivery conditions Observaciones: BARRES DE ACERO ESTIRADAS / TORNEADAS EN FRIÓ SIN ALTAIR

DEPARTAMENTO DE CALIDAD: Certifica que el mencionado producto cumple con las especificaciones del pedido.  
QUALITY DEPARTMENT: Certify that the product fulfills the order specifications.  
Fecha/Date: 09/02/2017 Firmado: Silvana Fernández  
Director de Calidad









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47919 49278

EREGIT DEMİR ve ÇELİK FABRİKATARI T.A.S.  
OUTSTANDING CAPITAL : 3.500 000.000 TL  
PRODUCTION PLANT : ERDEMİR

CUSTOMER : WIRTH STEEL  
ORDER NO : 76603208709  
DIMENSIONS, mm : 12.700 X 2438 X 6866 ( 0.500 X 96 X 240 INCH )  
STANDARD & GRADE : CSA 640 21-13 / ASTM A572-15 / SAEW 330W + GR50 TYPE 2 (ERDEMİR 3246)  
PRODUCT TYPE & DEFINITION : LRK HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

## PRODUCT INFORMATION

TICKET NO/WEIGHT (MT)	HEAT NO	COIL or PLATE NO	P.S. TEST or SAM	TENSILE TEST	BEND TEST (%)	Y/T (%)	IMPACT TEST, TEMPERATURE	TEST POSITION :	TESTS	HIGH TEMP	TEMP	YIELD TEMP	YIELD (%)	C	MN	P	S	SI	AL	CU	N	V	N	PPM		
									1	2	3			%	%	%	%	%	%	%	%	%	%	%		
0237035595 9.290		7023017503102		6																						
	735248	7552482090420		TT	399.1	56.1	36							0.197 1.445 0.018	0.002 0.204	0.025 0.042	0.073	54								
	735252	75525220600219		TT	433.5	58.7	4							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
	735252	755252205060220		TT	433.5	58.7	4							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
	735252	75525220600310		TT	438.4	59.7	2							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
	735252	755252205060410		TT	433.5	58.7	4							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
	735252	75525220600420		TT	433.5	58.7	4							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
0237035596 3.100		7023017521010	2																							
	735353	75535320900110		TT	437.4	591.3	32							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
	735353	75535320900220		TT	437.4	591.3	32							0.197 1.235 0.017	0.003 0.208	0.039 0.026	0.043 0.075	44								
0237035597 3.150		7023017551010	2																							
	725106	725106202060220		TT	400.1	560.0	38							0.162 1.250 0.018	0.007	0.190 0.033	0.025 0.040	0.073	50							
	725106	725106202060220		TT	400.1	560.0	38							0.162 1.250 0.018	0.007	0.190 0.033	0.025 0.040	0.073	50							
0237035598 9.380		735525220503220	6	TT	438.4	597.2	32							0.197 1.223 0.019	0.003 0.194	0.030 0.023	0.042 0.076	43								
	724595	72459520450101		TT	400.1	576.6	36							0.197 1.235 0.017	0.003 0.203	0.039 0.026	0.043 0.075	44								
	724595	72459520450102		TT	400.1	576.6	36							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								
	724595	724595202060320		TT	400.1	576.6	36							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								
	724595	724595202060310		TT	407.0	584.5	34							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								
	724595	72459520300410		TT	407.0	584.5	34							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								
	724595	724595205060210		TT	400.1	576.6	36							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								
	724595	7245952060220		TT	400.1	576.6	36							0.195 1.339 0.021	0.003 0.220	0.030 0.028	0.042 0.075	54								

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA 640 21-13 / ASTM A572-15 / SAEW 330W / GR50 TYPE 2 (ERDEMİR 3246).

WITH SATISFACTORY RESULTS  
IN ACCORDANCE WITH THE RULES OF  
TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1



NOTE : T End, M Middle, E End, T Transverse, L Longitudinal, P.S. Piece of Slice, P.P. Piece of Plate  
MEHS Number (Istanbul Head Office) : 0352-0006 4250-000  
Trade Registry Number (Statistical Department) : 91659  
Hac Office : Istanbul, Barbaros Mah. Ardit Sok. No: 6 34745 Atasehir - ISTANBUL - TURKEY  
www.erdemir.com.tr



www.erdemir.com.tr

www.erdemir.com.tr



EREGIT-DENIR VE ÇELİK FABRİKASYON T.A.S.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMİR

TEST CERTIFICATE  
EN 10204 / 2004 TYPE 3.1

DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 3

:WIRTH STEEL

12.700 X 2438 X 6096 ( 0.500 X 96 X 240 INCH )  
CSA G40.21-13 / ASTM A572-15 30CW/35W / G50 TYPE 2(ERDEMİR 3246)

LOT NO. 1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATIONS

TICKET NO/WEIGHT (MT)	HEAT NO	COIL or PLATE NO	P.S or P.P	TENSILE TEST YIELD TEST % STRENGTH R/mm2	BEND TEST BH VAL	HARDNESS HV VAL	Y/T % VAL	IMPACT TEST Position 1 2 3	HIGH TEMP °C VAL	AVR TEMP °C VAL	CHEMICAL COMPOSITION, CAST ANALYSIS								
											C	MN	P	S	SI	AL	N		
0237039602 / 3.140	735248	73524820100420	TT	409.9	573.7	36	2				0.197	1.445	0.018	0.002	0.204	0.025	0.042	0.073	54
	735248	73524820400410	TT	399.1	561.9	38					0.197	1.445	0.018	0.002	0.204	0.025	0.042	0.073	54
0237039603 / 3.050	735248	73524820400420	TT	399.1	561.9	39	2				0.197	1.445	0.016	0.002	0.204	0.025	0.042	0.073	54
	735353	735353183471010	TT	437.4	591.3	32					0.182	1.250	0.018	0.007	0.190	0.033	0.025	0.040	50
0237039604 / 3.050	735353	735353209603101	TT	437.4	591.3	32	2				0.182	1.250	0.018	0.007	0.190	0.033	0.025	0.040	50
	735252	7352520400310	TT	433.5	587.4	32					0.197	1.235	0.017	0.003	0.203	0.030	0.026	0.043	44
0237042307 / 13.970	735252	7352520400320	TT	433.5	587.4	32	3				0.197	1.235	0.017	0.003	0.203	0.030	0.026	0.043	44
	716634	7166342050110	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	44
	716634	7166342050210	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420500220	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420500320	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600110	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600120	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600210	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600220	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600310	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600320	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600410	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49
	716634	71663420600420	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	49

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40.21-13 / ASTM A572-15 30CW/35W / G50 TYPE 2(ERDEMİR 3246)

WITH SATISFACTORY RESULTS.



www.erdemir.com.tr

NOTE: T.T.C. M.W.G. S. Eng. T. Transverse L Longitudinal, P. Splice of Edge, P.P. Piece of Plate  
Trade Registry Number: 4252-0006-4259-0020, Trade Registry Number: 90659, Trade Registry Number: 1571722  
Head Office: Istanbul, Barbaros Mah. Arditci Sok. No: 5 34746 Ataköy İSTANBUL - TURKEY

**EREST+DEMR+VE GETIC PABR+KARTI T.A.Y.**  
**OUTSTANDING CAPITAL : 3.500.000.000 TL**  
**PRODUCTION PLANT : EREDEMIR**

TEST CERTIFICATE

DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO

CUSTOMER	WIRTH STEEL
ORDER NO.	: 78603208709
DIMENSIONS, mm	: 12,700 X 2438 X 6096 ( 0,500 X 96 X 240 INCH )
STANDARD & GRADE	: CSA 640-21-13 / ASTM A572-15 300WY50W / GR50 TYPE 2 (EEDBIR 3246)
PRODUCT TYPE & DEFINITION	: LMK HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO. 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

The image shows two circular embossed seals from 'KALDEMIR LABORATORIUM'. The outer ring of both seals contains the text 'KALDEMIR LABORATORIUM' at the top and 'QUALITÄT' at the bottom. The inner circle of the first seal contains 'FABRIKAT' at the top and 'T.A.S.' at the bottom. The inner circle of the second seal contains 'PRODUKT' at the top and 'T.A.S.' at the bottom.

HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
WITH SATISFACTORY RESULTS



[www.erdemir.com.tr](http://www.erdemir.com.tr)

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NOTE  
WEEK  
HEAD



ERDEMIR ÇELİK FABRİKALARI T.A.S.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMIR

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

CUSTOMER

WIRTH STEEL

: 78603208709

DIMENSIONS, mm : 12.700 X 2438 X 6096 { 0.500 X 36 X 240 INCH }  
STANDARD & GRADE : CSA G40.21-13 / ASTM A572-15 30MW/50W / G50 TYPE 2(ERDEMIR 3246)

PRODUCT TYPE & DEFINITION LKK : HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO:1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATIONS

TICKET NO/WEIGHT (MT)	HEAT NO	COIL or PLATE NO	P.S or P.P	MECHANICAL TESTS		YIT TEST BEND TEST STRENGTH TEST VAL N/mm2	YIELD TEST VAL N/mm2	HARD NESS VAL	IMPACT TEST POSITION 1 2 3	AVR TEMP °C	CHEMICAL COMPOSITION CAST ANALYSIS						
				P.S or P.P	PCS YIELD TEST % VAL						C %	MN %	P %	S %	SI %	AL %	V %
0237042338 6.190	727035	727032040210	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	727032040220	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	727032040310	TT	432.5	575.7	34					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	727032040320	TT	432.5	575.7	34					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	727032040410	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	727032040420	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	7023023992010	4									0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	7270320200410	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	7270320200420	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	7270320300410	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	727036	7270320300420	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.042	0.075
	7023023993010	4									0.181	1.261	0.022	0.004	0.198	0.042	0.075
	716634	7166340405010	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.075
	716634	7166342040120	TT	442.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.075
	716634	71663422080110	TT	441.3	550.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.075
	716634	71663422080201	TT	441.3	550.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.075
	727037	72703202995010	TT	415.8	573.7	36					0.193	1.264	0.024	0.004	0.197	0.033	0.075
	727037	727032030320	TT	415.8	573.7	36					0.193	1.264	0.024	0.004	0.197	0.033	0.075
	727037	727032030410	TT	412.9	553.9	28					0.193	1.264	0.024	0.004	0.197	0.033	0.075

WE THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF

CSA G40.21-13 / ASTM A572-15 30MW/50W / G50 TYPE 2(ERDEMIR 3246),  
WITH SATISFACTORY RESULTS.

TEST CERTIFICATE DATE : 18/10/2017 CERTIFICATE NO : 71612651 PAGE NO : 6



TEST CERTIFICATE

TEST CERTIFICATE NO : 71612651  
DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 6  
WE THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
CSA G40.21-13 / ASTM A572-15 30MW/50W / G50 TYPE 2(ERDEMIR 3246),  
WITH SATISFACTORY RESULTS.



www.erdemir.com.tr

ERDEMİR ÇELİK FABRİKASI T.A.S.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMİR

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

CUSTOMER  
ORDER NO : WURTH STEEL  
DIMENSIONS : mm  
STANDARD & GRADE : CSA G40 21-13 / ASTM A372-15 30MW/35W / G550 TYPE 2(ERDEMİR 3246)

DATE : 16/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 7

LOT NO: 1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATIONS

TICKET NO/WEIGHT (MT)	HEAT NO	COIL No.	MECHANICAL TESTS			HARDNESS VAL.	TEST POSITION	TEST LOAD	HIGH TEMP °C	AVR TEMP °C	YIELD C/N/M2	CHEMICAL COMPOSITION CAST ANALYSIS									
			P.S or SAM	P.Y or P.P	TENSILE %							Ag	Mn	P	S	Si	Al	Cr	Ni	V	N
0237042342	12.390	727037	72703720300420	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720463310	TT	415.3	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	727037206406320	TT	415.8	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720400410	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720400420	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7023022996L010	e	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720300110	TT	415.8	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720300120	TT	415.8	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720300210	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	72703720300220	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040110	TT	415.8	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040120	TT	415.8	573.7	36					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040130	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040140	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040150	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040160	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040170	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040180	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040190	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040200	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040210	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040220	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040230	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040240	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040250	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040260	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040270	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040280	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040290	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040300	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040310	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040320	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040330	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040340	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040350	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040360	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040370	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040380	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040390	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040400	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040410	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040420	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040430	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040440	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040450	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040460	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040470	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040480	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040490	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727037	7270372040500	TT	412.9	563.9	28					0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
		727036	72703620500201	TT	408.9	581.5	32					0.184	1.264	0.024	0.004	0.198	0.028	0.018	0.042	0.075	45
		727036	72703620500220	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
		727036	72703620500610101	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45

WE (THE MANUFACTURER) HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40 21-13 / ASTM A372-15 30MW/35W / G550 TYPE 2(

ERDEMİR LTD. VE CELİK FABRİKALARI T.A.S.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMİR

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 8

WIRTH STEEL

ORDER NO : 78603208709  
DIMENSIONS, mm : 12.700 X 2438 X 6096 { 0.500 X 96 X 240 INCH }  
STANDARD & GRADE : CSA G40.21-13 / ASTM A372-15 300W/350W / GR50 TYPE 2(ERDEMİR 3246)  
PRODUCT TYPE & DEFINITION : LKK : HOT ROLLED HEAVY PLATE WITH MILL EDGE

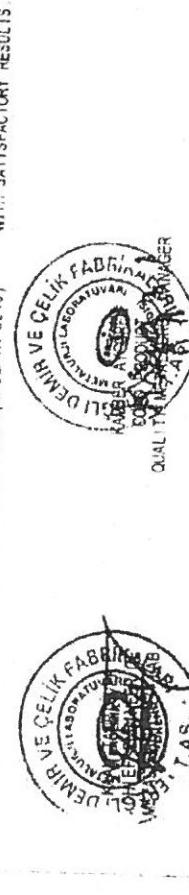
LOT NO:1  
FULLY KILLED AND FINE GRAIN PRACTICE  
NO MERCURY COMPOUNDS NO WELD REPAIR

PRODUCT INFORMATIONS

TICKET NO	HEAT NO	COIL	MECHANICAL PROPERTIES			YIT	IMPACT TEST, JUICE	HIGH TEMP.	CHEMICAL COMPOSITION CAST ANALYSIS									
			OR	SAW	TENSILE TEST				B	%	P	S	SI	AL	CU	N		
WEIGHT (MT)	PLATE NO	OR P.P	PCG	YIELD STRENGTH EL VAL	STRENGTH SH VAL	VAL	VAL	°C	C %	%	%	%	%	%	%	PPM		
0237042355112.3101	72703620503101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620503201	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620504101	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620504201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	7270362050601101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	7270362050602101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	702502090913101	8							0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620702101	TT	408.9	561.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620702201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620703101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620703201	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620704101	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620704201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703720100110	TT	415.8	573.7	36				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703720100120	TT	415.8	573.7	36				0.184	1.264	0.022	0.004	0.197	0.033	0.022	0.042	0.074	45
	10230230101010	8							0.184	1.264	0.022	0.004	0.197	0.033	0.022	0.042	0.074	45
	727036208002101	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	727036208002201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620803101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620803201	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620804101	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620804201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620805101	TT	415.8	573.7	36				0.184	1.264	0.022	0.004	0.197	0.033	0.022	0.042	0.074	45
	72703620805201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620806101	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620806201	TT	408.9	581.5	32				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620807101	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703620807201	TT	432.5	575.7	34				0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
	72703720100120	TT	415.8	573.7	36				0.184	1.264	0.022	0.004	0.197	0.033	0.022	0.042	0.074	45
	10230230101010	8							0.184	1.264	0.022	0.004	0.197	0.033	0.022	0.042	0.074	45

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
CSA G40.21-13 / ASIM A572-15 300W/350W / GR50 TYPE 2(ERDEMİR 3246)

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
CSA G40.21-13 / ASIM A572-15 300W/350W / GR50 TYPE 2(ERDEMİR 3246)



NOTE: T.T.CD. M.Middle E.Eqd. T.Traverse U.Longitudinal, P.S.Piece of Since, P.P.Piece of Plate

Trade Registry Number (Erzincan Department) 90659; Trade Registry Number (İstanbul Department) 15737272  
Head Office: İstanbul Barbaros Mah. Arıcılar Sok. No: 6 33746 Arıantepe, İSTANBUL - TURKEY

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EREGI TESHIR VE ÇELİK FABRİKASI T.A.S.  
OUTSTANDING CAPITAL 3.500.000.000 TL  
PRODUCTION PLANT ERDEMİR

CUSTOMER :WIRTH STEEL

TICKET NO: 78603208703

ORDER NO: 12.700 X 2438 X 6096 ( 0.500 X 96 X 240 INCH )

DIMENSIONS, mm

STANDARD & GRADE :CSA G40.21-13 / ASTM A572-15 300W / GR50 TYPE 2(ERDEMİR 3246)

PRODUCT TYPE & DEFINITION :LRK : HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO:1 NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATIONS

TICKET NO/WEIGHT (MT)	HEAT NO	COIL or PLATE NO	P.S or P.P	MECHANICAL TESTS		BEND TEST VAL N/mm2	YIELD TEST VAL 50	HARD NESS VAL	IMPACT TEST, JUULS POSITION		HIGH TEMP C	AVR TEMP C	CHEMICAL COMPOSITION, CAST ANALYSIS								
				Y.T.	UT				1	2	3		AN	P	S	Si	Al	CU	NI	V	N
0237042356	12.340	727036	7270362050010	TT	408.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
		727036	7270362050020	TT	406.9	581.5	32					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
		727036	7270362070010	TT	432.5	575.7	34					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
		727036	72703620700120	TT	432.5	575.7	34					0.181	1.261	0.022	0.004	0.198	0.028	0.018	0.042	0.075	45
		702302301101010	6																		
		716634	7166342030010	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300120	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	7166342030020	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300200	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300310	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300320	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300410	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420300420	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.205	0.033	0.027	0.049	0.075	49
		716634	7023023012010	8								0.193	1.246	0.022	0.004	0.205	0.033	0.027	0.049	0.075	49
		716634	71663420100110	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.205	0.033	0.027	0.049	0.075	49
		716634	71663420100120	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.205	0.033	0.027	0.049	0.075	49
		716634	71663420100210	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100220	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100310	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100320	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100410	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100420	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100510	TT	441.3	590.4	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100520	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100610	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100620	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100710	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100720	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100810	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100820	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100910	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420100920	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101010	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101020	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101110	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101120	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101210	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101220	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101310	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101320	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101410	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101420	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101510	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101520	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101610	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101620	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101710	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101720	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101810	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101820	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101910	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420101920	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206	0.033	0.027	0.049	0.075	49
		716634	71663420102010	TT	424.6	572.7	32					0.193	1.246	0.022	0.004	0.206</td					

BİGGET DEMİR VE GELİK FABRİKALARI T.A.S.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMİR

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

DATE : 18/10/2017  
CERTIFICATE NO : 71612851  
PAGE NO : 10

WIRTH STEEL

:76603208709

DIMENSIONS, mm : 12.700 X 2438 X 6096 ( 0.500 X 96 X 240 INCH )  
STANDARD & GRADE : CSA 640 21-13 / ASTM A572-15 300W / GR50 TYPE 2(ERDEMİR 3246)  
PRODUCT TYPE & DEFINITION : LKK : HOT ROLLED HEAVY PLATE WITH MILL EDGE

LOT NO: 1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT JACKET NO/WEIGHT (MT)	HEAT NO PLATE NO	INFORMATION			MECHANICAL TEST			CHEMICAL COMPOSITION, CAST ANALYSIS										
		COIL OR PLATE	P.S. OR P.P.	TENSILE TEST % TESTI BH	Ag BEND TESTI EL VAL. N/MM2	V/T OR HARD NESS TESTI BH VAL. VAL. N/MM2	IMPACT TEST Position 1 2 3	High TEMP °C °C N/mm2	C %	Mn %	P %	S %	Si %	Al %	CU %	NI %	V %	N PPM
0237042358   12.30	716634   71663420200210   1	TT	441.3	590.4	32				0.193	1.246	0.022	0.04	0.206	0.033	0.027	0.049	0.075	45
	716634   7023023010L010   8	TT	441.3	590.4	32				0.193	1.246	0.022	0.04	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420100310   1	TT	424.6	572.7	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420100320   1	TT	424.6	572.7	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420100410   1	TT	441.3	590.4	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420100420   1	TT	441.3	590.4	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420200310   1	TT	424.6	572.7	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420200320   1	TT	424.6	572.7	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420200410   1	TT	441.3	590.4	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	716634   71663420200420   1	TT	441.3	590.4	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
0237042359   12.300	7023023010410   6	TT	441.3	590.4	32				0.193	1.246	0.022	0.064	0.206	0.033	0.027	0.049	0.075	49
	727037   72703720100210   1	TT	412.9	563.9	28				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720100220   1	TT	412.9	563.9	28				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720100310   1	TT	45.8	573.7	36				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720100320   1	TT	415.8	573.7	36				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720100410   1	TT	412.9	563.9	28				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720100420   1	TT	412.9	563.9	28				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720200110   1	TT	415.8	573.7	36				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45
	727037   72703720200120   1	TT	415.8	573.7	36				0.184	1.264	0.024	0.004	0.197	0.033	0.022	0.042	0.074	45

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA 640 21-13 / ASTM A572-15 300W/350W / GR50 TYPE 2(ERDEMİR 3246) WITH SATISFACTORY RESULTS



NOTE: T.T.C.D. M.S.S. E. End T Transverse Longitudinal, P.S. Piece of Slat, P.P. Piece of Plate  
MERISI Number (İstanbul) Head Office: 0352-70054260 CİRC. Trade Registry Number (İstanbul Department) 90659. Trade Registry Number (İstanbul Department) 157472  
Head Office: İstanbul Barbaç Mah. Ardiç Sok. No: 6 34746 Ataşehir İSTANBUL - TURKEY  
www.erdemir.com.tr

KOLLEKTİF PRODUKT İNCELEMƏSİ  
QUALİTY ASSURANCE DEPARTMENT



WWW.ERDEMIR.COM.TR

**GERCİ DEĞİN ve ÇELİK FABRİKALARI Y.A.S.**  
**OUTSTANDING CAPITAL : 3.500.000.000 TL**  
**CONSTRUCTION STANT.**

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 1

DT NO 1 NO MERCURY COMPOUNDS NO WELD REPAIR  
ULLY KILLED AND FINE GRAIN PRACTICE

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF  
CSCSA G01-13 / ASTM A572-15 / SAE J30W/35W / G850 TYPE 2/ERG850 3240  
WITH SATISFACTORY RESULTS



NOTE  
VERSUS  
THE 3d C





ERDEMİR - GEHL FABRİKASI A.Ş.  
OUTSTANDING CAPITAL : 3.500.000.000 TL  
PRODUCTION PLANT : ERDEMİR

TEST CERTIFICATE  
EN 10204 : 2004 TYPE 3.1

WIRTH STEEL  
78603209739

DIMENSIONS, mm  
STANDARD & GRADE  
PRODUCT TYPE & DEFINITION : LRK : HOT ROLLED HEAVY PLATE WITH MILL EDGE  
CSA G40.21-13 / ASTM A572-15 30CW/35CW / G50 TYPE 2(ERDEMİR 3246)

LOT NO: 1  
NO MERCURY COMPOUNDS NO WELD REPAIR  
FULLY KILLED AND FINE GRAIN PRACTICE

PRODUCT INFORMATIONS

TICKET NO/WEIGHT (MT)	HEAT NO	COIL OR PLATE NO	P.S OR P.P	MECHANICAL TESTS		BEND TEST VAL	IMPACT TEST VAL	HARD NESS VAL	POSITION :	HIGH TEMP °C	C %	Mn %	P %	S %	Si %	Al %	Cu %	Ni %	V %	N PPM	CHEMICAL COMPOSITION CAST ANALYSIS		
				Y/T TEST	ISAW TEST																		
023702548	6.170	727037	72703720600420	TT	412.9	563.9	28																
			7023023160010	4																			
			716634	TT	441.3	590.4	32																
			716634	TT	441.3	580.4	32																
0237042845	3.060	727036	72703620200110	TT	432.5	575.7	34																
			72703620200120	TT	432.5	575.7	34																
			70230234601010	2																			
0237043371	9.270	727036	72703620200310	TT	432.5	575.7	34																
			72703620200320	TT	432.5	575.7	34																
			727036	TT	408.9	581.5	32																
			72703620100110	TT	408.9	581.5	32																
			727036	TT	432.5	575.7	34																
			72703620100220	TT	432.5	575.7	34																
			727036	TT	432.5	575.7	34																
			72703620100420	TT	432.5	575.7	34																
0237044145	3.060	727036	70230248501010	2																			
			72703620100310	TT	432.5	575.7	34																
			72703620100320	TT	432.5	575.7	34																

WE THE MANUFACTURER HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE BY THE BASIC OXYGEN PROCESS AND TESTED IN ACCORDANCE WITH THE RULES OF CSA G40.21-13 / ASTM A572-15 30CW/35CW / G50 TYPE 2(ERDEMİR 3246) WITH SATISFACTORY RESULTS.



NOTE : Top, Middle, End, Transverse, Longitudinal, P.S Piece of Slice, P.P Piece of Plate  
MERCIS Number(Istanbul Head Office): 0352-006-4560-000, Trade Registry Number(Istanbul Department): 90659, Trade Registry Number(Ereglî Department): 1574  
Head Office: Istanbul Barbars Mah. Arıç Sok. No: 6 34746 Ataşehir İSTANBUL - TURKEY  
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DATE : 18/10/2017  
CERTIFICATE NO : 71612651  
PAGE NO : 14

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QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)	SIGNED OFF BY:	DATE:
INSPPECTED BY: DAS	APR 10 2018	9-89	DATE: 9-89 APR 10 2018

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.					
TYPE OF MATERIAL	HARDNESS / DUROMETER READING				
	HRD	HRB	DUR A	DUR D	WEBSTER

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	
SIZE OF TEST SAMPLE		
HARDNESS / DUROMETER READING		

MATERIAL CERT REC'D: YES DATE: APR 10 2018  
 QUANTITY RECEIVED: 1.000 SHEET SIZE RECEIVED: 1.000  
 QUANTITY INSPECTED: 1.000 SHEET SIZE ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000 SHEET SIZE ORDERED: 1.000  
 MATERIAL CERT REC'D: YES DATE: APR 10 2018  
 QUANTITY RECEIVED: 1.000 SHEET SIZE RECEIVED: 1.000  
 QUANTITY INSPECTED: 1.000 SHEET SIZE ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000 SHEET SIZE ORDERED: 1.000

MATERIAL: 116611681.000X041.000 PO / BATCH NO: Q39321/503687 DATE: APR 10 2018

### MATERIAL RECEIPT INSPECTION FORM

# SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
 SPECIFICATION:  
 QQ-A-2258 OR AMS-QQ-A-2258 (OR AMS 4117/4128/4115/4116)  
 OR QQ-A-2008 OR AMS-QQ-A-2008 (OR AMS 4160)  
 OR ASTM B211 OR ~~ASTM B221~~  
 M6061T6B | T.TTT | X | WW WWW |  
 THICK | WIDTH |  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 "WW WWW" = WIDTH IN INCHES  
 E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

A  
 PART NUMBER:  
 M6061T6B | T.TTT | X | WW WWW |  
 THICK | WIDTH |  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 "WW WWW" = WIDTH IN INCHES  
 E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

C

C

B

B

**RELEASED**  
 2009-05-02  
*MW*

B	REMOVE QQ-A-25041 OPTION, REFORMAT NOTES, ADD		CP	09.07.13
A	ASTM B21/B221 (ZN D7-1)		DS	01.06.08
REV	NEW ISSUE		BY	DATE
DESIGN	DS	DART AEROSPACE LTD		
DRAWN	<i>JPS</i>	HAWKESBURY, ONTARIO, CANADA		
CHECKED	<i>JPS</i>	DRAWING NO.	REV. B	
MFG. APPR.	<i>JPS</i>	M6061T6B	SHEET 1 OF 1	
APPROVED	<i>JPS</i>	TITLE	SCALE	
DE APPR.	<i>JPS</i>	6061-T6 BAR	NTS	
DATE	09.07.13			

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Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)	SIGNED OFF BY: <i>DAS</i>	DATE: <i>APR 10 2018</i>
INSPPECTED BY: <i>9-89</i>			
TESTERS LOCATED IN THE QUALITY OFFICE			

CUT SAMPLE PIECE OF MATERIAL AND PEEFOMA HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
	SIZE OF TEST SAMPLE				
	HARDNESS / DUROMETER READING				

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER MDRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAl IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
SIZE OF TEST SAMPLE		
TESTERS LOCATED IN THE QUALITY OFFICE		

MATERIAL CERT REC'D: *WQ.110* DATE: *APR 10 2018*  
 QUANTITY RECEIVED: *65* QUANTITY REJECTED: *0*  
 THICKNESS RECEIVED: *WQ.120* SHEET SIZE ORDERED: *WQ.120*  
 QUANTITY INSPECTED: *65* SHEET SIZE RECEIVED: *WQ.120*  
 MATERIAL CERT REC'D: *WQ.110* DATE: *APR 10 2018*  
 QUANTITY RECEIVED: *65* QUANTITY REJECTED: *0*  
 THICKNESS RECEIVED: *WQ.120* SHEET SIZE ORDERED: *WQ.120*  
 QUANTITY INSPECTED: *65* SHEET SIZE RECEIVED: *WQ.120*

MATERIAL: *MT-A513-T0875-WQ.120* PO / BATCH NO.: *Q39531/S05986*

## MATERIAL RECEIPT INSPECTION FORM

## SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-655	17.09.06	VM	WM
B	TYPE 5 ADDED; TEMPLATE UPDATED	17-790	17.12.13	VM	ML

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)

#### SPECIFICATION:

ASTM A513 TYPE 5

MI-A513-T-[B.BBB]W[T.TT]

WHERE B.BBB IS OUTSIDE DIAMETER IN INCHES

WHERE T.HT IS WALL THICKNESS IN INCHES

EG. 3/4": ROUND TUBING WITH .120" WALL THICKNESS

PART NO.		TITLE	
MT-A513-T		ASTM A513 TYPE S (1020/1025) ALLOY STEEL ROUND TUBING (DOM)	
TOOL NO.		REV	B
INITIALS AND DATE INTERPRETED BY AND VERIFIED BY DESIGNED BY: DRAWN BY: CHECKED BY: MATERIAL BY: APPROVED BY:		UNLESS OTHERWISE SPECIFIED: INTERPRETED AND VERIFIED BY: 2005 TOLERANCES: XX ± .005 X ± .1 .1 SCALE: MTS SHEET 1 OF 1	
DRAFT AEROSPACE HISTORY, ONTARIO, CANADA			
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GC 18 INSPECTION		DA'S	ENGINEERING SIGN OFF (if required)
		INSPPECTED BY:	SIGNED OFF BY:
		DATE: 9-B9 APR 10 2018	DATE:

RECORD RESULTS BELOW						TESTERS LOCATED IN THE QUALITY OFFICE	
TYPE OF MATERIAL	HRc	HRB	DUR A	DUR D	WEBSTER	SIZE OF TEST SAMPLE	HARDNESS / DUROMETER READING

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y N	
CORRECT FINISH	Y N	
CORROSION	Y N	
CORRECT GRAIN DIRECTION	Y N	
CORRECT MATERIAL PER DRAWING	Y N	
PHOTO REQUIRED	Y N	
CORRECT MATERIAL IDENTIFICATION	Y N	
CORRECT M# ON THE MATERIAL	Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y N	
DOES THIS MATERIAL REQUIRE AN EXTRUSION REPORT	Y N	

MATERIAL CERT REC'D:	YES	DATE: APR 10 2018
THICKNESS RECEIVED:	1.125	QUANTITY RECEIVED:
THICKNESS ORDERED:	1.125	QUANTITY INSPECTED:
SHET SIZE ORDERED:	1.125	SHET SIZE RECEIVED:
SHET SIZE RECEIVED:	1.125	QUANTITY REJECTED:
SHET SIZE RECEIVED:	1.125	QUANTITY RECEIVED:

MATERIAL: M1018R1.125 DATE: APR 10 2018  
 PO / BATCH NO.: Q38321/5039685

## MATERIAL RECEIPT INSPECTION FORM

# SPECIFICATION CONTROL DRAWING

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D

C

B

RELEASE  
2012-09-24

PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR

SPECIFICATION: MIL-S-7097 OR ASTM A108

PART NUMBER: M1018-R<sup>D</sup><sub>DDD</sub> WHERE D.DDD = DIAMETER IN INCHES

DIA.

EG. 7/8" ROUND BAR = M1018-R0.875

TOLENCES: PER ASTM A108 AS FOLLOWS:

SIZE	TOLERANCE
UP TO 1.5" INCL.	+0.000/-0.002
OVER 1.5" TO 2.5" INCL.	+0.000/-0.003
OVER 2.5" TO 4.0" INCL.	+0.000/-0.004
OVER 4.0" TO 6.0" INCL.	+0.000/-0.005
OVER 6.0" TO 8.0" INCL.	+0.000/-0.006

A	B	C	D
	REFORMAT ADD ASTM A108, ADD TOLERANCES	CP	12.09.05
A	NEW ISSUE	DS	01.06.12
REV.	BY	DATE	
DESIGN	DS	DESCRIPTION	
DRAWN	CP	DART AEROSPACE LTD	
CHECKED	B.P.	HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.		DRAWING NO.	REV. B
APPROVED		M1018-R	SHEET 1 OF 1
DE APPR.		TITLE	SCALE
DATE	12.09.05	1018-1025 ROUND BAR NTS	
		COPYRIGHT © 2011 BY DART AEROSPACE LTD. THE DOCUMENT CONTAINS CONFIDENTIAL AND/OR PROPRIETARY INFORMATION OF DART AEROSPACE LTD. IT IS UNAUTHORIZED TO COPY OR DISSEMINATE THIS DOCUMENT.	

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QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)	SIGNED OFF BY:	DATUM:
		DAS	APR 10 2018
INSPECTED BY:			

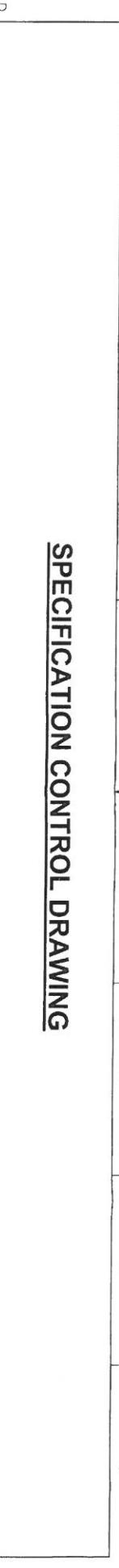
RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.	HR C	HR B	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL	SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING					
TESTERS LOCATED IN THE QUALITY OFFICE					

DESCRIPTION	NCR	Comments (check Y/N)
SURFACE DAMAGE	<input checked="" type="checkbox"/>	N
CORROSION	<input checked="" type="checkbox"/>	N
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL PER DRAWING	<input checked="" type="checkbox"/>	After 4876
CORRECT THICKNESS	<input checked="" type="checkbox"/>	4.0 mm
PHOTO REQUIRED	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	N
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	N
CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.		

MATERIAL CERT REC'D: 0.375 QTY RECEIVED: 341 QUANTITY INSPECTED: 341 QUANTITY REJECTED: 0  
 SHEET SIZE ORDERED: 0.375 SHEET SIZE RECEIVED: 0.375 SHEET SIZE RECEIVED: 0.375  
 THICKNESS RECEIVED: 0.375 THICKNESS ORDERED: 0.375 THICKNESS ORDERED: 0.375

MATERIAL: M304RCA375 DATE: APR 10 2018 PO / BATCH NO: 0395A1505688

# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR

(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION:

ASTM A276

PART NUMBER:

M304R<sup>DIA.</sup>

WHERE "D,DDD" = DIAMETER IN INCHES

E.G. 0.75" ROUND BAR = M304R0.750



RELEASED  
*08/25/04*

B	REFORMAT DWS ADD SPECS (IN DB-1), REF PAR 08-020A	CP	09.07.15
A	NEW ISSUE	AJS	08.03.03

REV.	DESCRIPTION	BY	DATE

DESIGN	<i>AJS</i>	DART AEROSPACE LTD	
DRAWN	<i>GT</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>JL</i>	DRAWING NO.	
MFG. APPR.	<i>AS</i>	M304R	REV B
APPROVED	<i>AS</i>	TITLE	SHEET 1 OF 1
DE APPR.	<i>AS</i>	304/316 ROUND BAR	SCALE
DATE	09.07.15	COPYRIGHT © 2008 BY DART AEROSPACE LTD	NTS

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GC 18 INSPECTION		ENGINEERING SIGN OFF (if required)	INSPECTED BY: <i>DAS</i>	SIGNED OFF BY: <i>9-89</i>	DATE: <i>APR 10 2018</i>
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CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
	SIZE OF TEST SAMPLE				
	HARDNESS / DUROMETER READING				

*esters located in the Quality Office*

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	CORRECT THICKNESS 0.500 +/- 0.010
CORROSION	<input checked="" type="checkbox"/>	CORRECT GRAIN DIRECTION Y/N
CORRECT FINISH	<input checked="" type="checkbox"/>	CORRECT MATERIAL PER MDRAWING HDX# 72495
PHOTO REQUIRED	<input checked="" type="checkbox"/>	CORRECT REF # TO LINK CERT
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	CORRECT MATERIAL IDENTIFICATION Y/N
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	CORRECT M# ON THE MATERIAL Y/N
DOES THIS MATERIAL REQUIRE SIGN OFF	<input checked="" type="checkbox"/>	DOES THIS MATERIAL REQUIRE SIGN OFF Y/N
DOES THIS REQUIRE AN ENGINEER SIGN OFF	<input checked="" type="checkbox"/>	DOES THIS REQUIRE AN ENGINEER SIGN OFF Y/N
EXTRUSION REPORT	<input checked="" type="checkbox"/>	EXTRUSION REPORT Y/N

MATERIAL CERT REC'D: *Yes*      DATE: *APR 10 2018*  
 PO / BATCH NO: *MT-HRS-B0500A2.250*  
 THICKNESS RECEIVED: *0.500*      SHEET SIZE RECEIVED: *6' x 6'*  
 QUANTITY RECEIVED: *6*      SHEET SIZE ORDERED: *6' x 6'*  
 QUANTITY INSPECTED: *6*      SHEET SIZE RECEIVED: *6' x 6'*  
 THICKNESS ORDERED: *0.500*      SHEET SIZE RECEIVED: *6' x 6'*  
 MATERIAL CERT REC'D: *No*      DATE: *APR 10 2018*  
 PO / BATCH NO: *MT-HRS-B0500A2.250*  
 THICKNESS RECEIVED: *0.500*      SHEET SIZE RECEIVED: *6' x 6'*  
 QUANTITY RECEIVED: *6*      SHEET SIZE ORDERED: *6' x 6'*  
 QUANTITY INSPECTED: *6*      SHEET SIZE RECEIVED: *6' x 6'*  
 THICKNESS ORDERED: *0.500*      SHEET SIZE RECEIVED: *6' x 6'*

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:

HOT ROLLED STEEL PLATE  
ASTM A36 OR ASTM A1011 OR 44W OR ASTM A1018

SPECIFICATION:

MT-HRS-P-[T.TTT]

WHERE T.TTT IS PLATE THICKNESS IN INCHES

PART NUMBER:

MT-HRS-P-0.750

TOLERANCES PER MANUFACTURER SPECIFICATIONS

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
B	REMOVED LENGTH AND WIDTH DIMENSIONS	17-675	28/09/2017	SAC	WM

A	B	C
<b>DART</b> <small>AEROSPACE</small> Hemel Hempstead, Hertfordshire, UK <b>HOT ROLLED STEEL PLATE</b>		
TITLE	REV.	
DWG NO.	B	
DESIGN BY:	REV.	
DRAWN BY:	B	
CHECKED:	REV.	
MFG APPROVED:	B	
APPROVED:	B	
DATE:	B	
SCALE:	B	
COPYRIGHT © 2017 BY DART AEROSPACE LTD	B	
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QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)	SIGNED OFF BY: <i>DAS</i>	DATE: <i>APR 10 2018</i>
INSPPECTED BY: <i>H</i>			

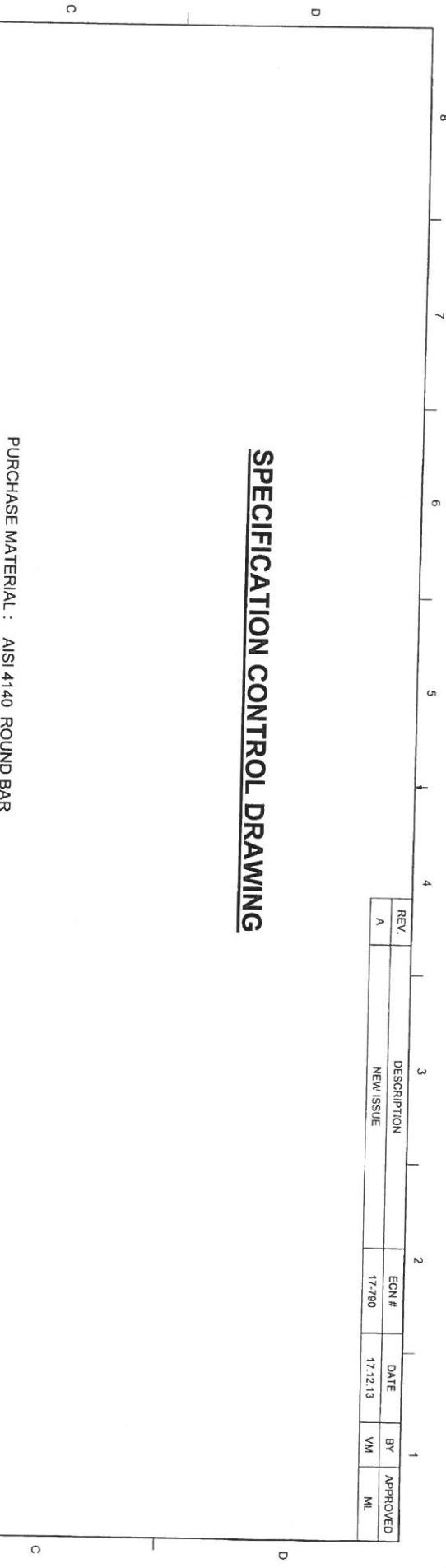
RECORD RESULTS BELOW							
CUT SAMPLE PIECE OF MATERIAL AND PREFERM A HARDNESS CHECK.							
TYPE OF MATERIAL	SIZE OF TEST SAMPLE	HARDNESS / DUROMETER READING	TESTERS LOCATED IN THE QUALITY OFFICE				
			HRc	HRB	DUR A	DUR D	WEBSTER

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERI AL PER MDRAWING	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT MATERI AL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
SIZE OF TEST SAMPLE		
TYPE OF MATERIAL		

MATERIAL CERT REC'D: *0.625* QUANTITY RECEIVED: *0.625* QUANTITY REJECTED: *0*  
 THICKNESS RECEIVED: *0.625* SHEET SIZE ORDERED: *0.625* SHEET SIZE RECEIVED: *0.625*  
 PO / BATCH NO.: *039521/5059692* DATE: *APR 10 2018*

# SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17/290	17.12.13	VM	ML



<b>DART</b> <b>AEROSPACE</b> Hamilton, Ohio, Canada	
TITLE	
AISI 4140 ROUND BAR	
PART NO.	MT-4140-R
TOOL NO.	
INITIALS AND DATE	
DESIGNED BY:	VM 17/12/2013
DRAWN BY:	VM 12/19/2017
CHECKED BY:	ML 12/20/2017
MFG REVIEW BY:	DP 12/20/2017
APPROVED BY:	ML 12/20/2017
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ALL DRAWINGS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
INTERPRET PER ASME Y14.5M-2009	
DIMENSIONS APPLY AFTER FINISHING	
TOLERANCES: $\pm .005$	
FRACTIONS: $\frac{1}{16}$ - $\frac{1}{2}$	
SURFACE ROUGHNESS: $\pm .1$	
SCALE/LETS:	SHEET OF 1
PRINTED AND DRAWN ON THE DATES INDICATED. THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD.	

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GC 18 INSPECTION		ENGINEERING SIGN OFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-8 APR 10 2018

RECORD RESULTS BELOW						CUT SAMPLE PIECE OF MATERIAL AND PREFERM A HARDNESS CHECK.	
TYPE OF MATERIAL						SIZE OF TEST SAMPLE	
HRC	HRB	DUR A	DUR D	WEBSTER	HARDNESS / DUROMETER READING		

DESCRIPTION	NCR (Check Y/N)	COMMENTS
CORRECT MATERIAL PER DRAWING	Y	A57m A311
CORRECT GRAIN DIRECTION	Y	
CORROSION	N	
CORRECT FINISH	Y	
SURFACE DAMAGE	Y	
CORRECT THICKNESS	Y	
PHOTO REQUIRED	N	
CORRECT MATERIAL IDENTIFICATION	Y	
CORRECT M# ON THE MATERIAL	Y	
DOES THIS MATERIAL REQUIRE CERT	N	
DOES THIS MATERIAL SIGN OFF	Y	
DOES THIS REQUIRE AN ENGINEERING SIGN OFF	N	
TESTERS LOCATED IN THE QUALITY OFFICE		

MATERIAL CERT REC'D:	yes	DATE: APR 10 2018
THICKNESS RECEIVED:	0.580	PO / BATCH NO: M714-H0.500
THICKNESS ORDERED:	0.500	QUANTITY RECEIVED:
QUANTITY RECEIVED:	0.580	QUANTITY INSPECTED:
THICKNESS ORDERED:	0.500	SHET SIZE RECEIVED:
QUANTITY INSPECTED:	0.580	SHET SIZE ORDERED:
QUANTITY RECEIVED:	0.580	QUANTITY REJECTED:
SHET SIZE RECEIVED:	0.580	

MATERIAL: M714-H0.500 DATE: APR 10 2018  
PO / BATCH NO: M714-H0.500

## MATERIAL RECEIPT INSPECTION FORM

# SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-507	18.1.17	VM	ML

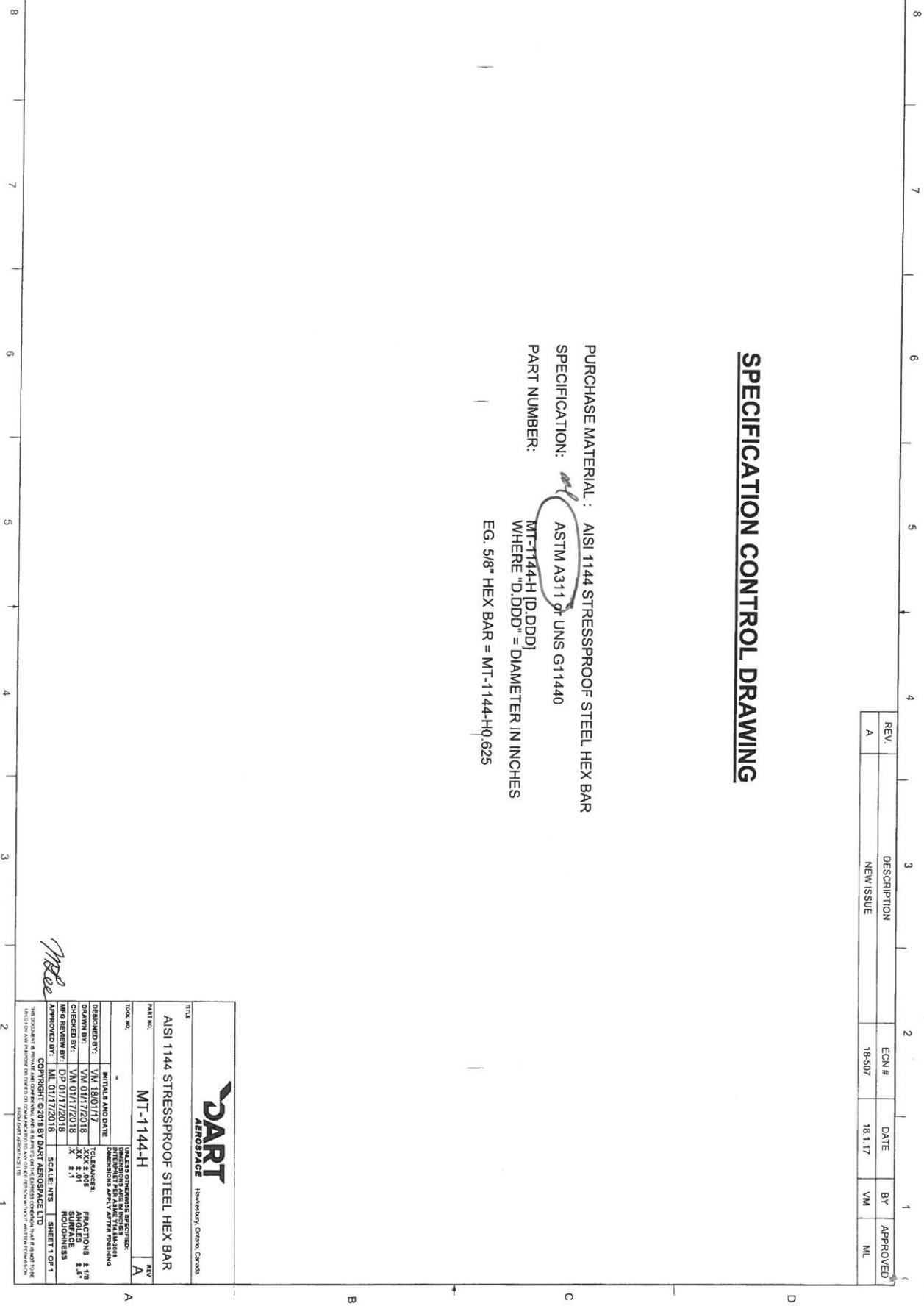
PURCHASE MATERIAL: AISI 1144 STRESSPROOF STEEL HEX BAR  
 SPECIFICATION: ASTM A311 or UNS G11440  
 PART NUMBER: MT-1144-H[D.DDD]  
 WHERE "D.DDD" = DIAMETER IN INCHES

EG. 5/8" HEX BAR = MT-1144-H0.625

<b>DART</b> AEROSPACE	
Kitchener, Ontario, Canada	
TITLE	
AISI 1144 STRESSPROOF STEEL HEX BAR	
PART NO.	MT-1144-H
TOOL NO.	-
DESIGNED BY:	V.M. 01/17/2017
DRAWN BY:	V.M. 01/17/2018
CHECKED BY:	D.P. 01/17/2018
APPROVED BY:	M.L. 01/17/2018
SCALE: INCHES	
SHEET OF 1	

*M. Lee*

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QC 18 INSPECTION		ENGINEERING SIGN OFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-89 APR 10 2018

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	HR C	HR B	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL	SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING					

DESCRIPTION	NCR (Check Y/N)	COMMENTS			
SURFACE DAMAGE	<input checked="" type="checkbox"/>				
CORRECT FINISH	<input checked="" type="checkbox"/>				
CORROSION	<input checked="" type="checkbox"/>				
CORRECT THICKNESS	<input checked="" type="checkbox"/>				
PHOTO REQUIRED	<input checked="" type="checkbox"/>				
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>				
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>				
CORRECT MATERI AL PER DRAWING	<input checked="" type="checkbox"/>				
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>				
CORRECT THICKNESS	<input checked="" type="checkbox"/>				
PHOTO REQUIRED	<input checked="" type="checkbox"/>				
CORRECT MATERI AL ON THE MATERIAL	<input checked="" type="checkbox"/>				
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>				
DOES THIS MATERIAL REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>				
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>				
TESTERS LOCATED IN THE QUALITY OFFICE					

MATERIAL CERT REC'D:	YES	DATE: APR 10 2018
THICKNESS RECEIVED:	0.250	QUANTITY RECEIVED:
THICKNESS ORDERED:	0.250	QUANTITY ORDERED:
PO / BATCH NO.: 059521/5039690		SHET SIZE RECEIVED:
		SHET SIZE ORDERED:

## MATERIAL RECEIPT INSPECTION FORM

